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REPLACES 275M

INSTRUCTION MANUAL FOR BALDOR GRINDERS

CAUTION

FOR YOUR OWN SAFETY READ INSTRUCTION MANUAL BEFORE OPERATING GRINDER.

Always wear safety glasses with side shields when operating grinder.

Unsuitable accessories or attachments added to this machine can create hazards. Baldor has accessories available specifically designed to be used with the grinder. Accessories or attachments obtained from another source may cause hazards.

Always use guards and eyeshields. Operation of grinder without the guards or eyeshields or with damaged guards and eyeshields must not be attempted because of the hazard this introduces. A damaged grinding wheel can disintegrate in all directions.

Do not overtighten wheel nut. An overtightened wheel nut introduces stresses in the grinding wheel which can cause it to disintegrate when grinder is operating. Wheel nut should be tightened just enough to prevent grinding wheel from slipping on shaft when grinding.

Use only flanges furnished with this grinder. The flanges furnished with the grinder are designed to grip the grinding wheel without introducing excessive stresses in wheel.

Replace cracked wheel immediately. A cracked wheel will disintegrate when operated causing a hazard to operator and nearby personnel.

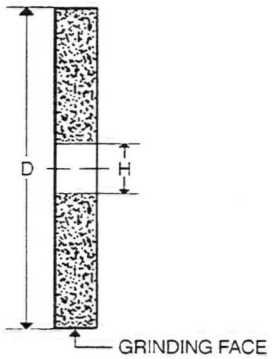
Always disconnect grinder from the power supply before servicing the machine. This is to prevent the accidental operation of the machine during servicing and to prevent contact with electrical live parts.

As wheels wear, adjust tool rest support to approximately 1/16 inch clearance between tool rest and wheel. Maintain 1/8 inch clearance maximum between tool rest and wheel. This clearance is necessary in preventing the work piece becoming wedged between wheel and tool rest and restricting nip areas in the machine.

Grind on grinding face (periphery) of wheels only. Grinding on side of wheel weakens the wheel and can cause wheel breakage. Also, grinding on the side of wheel introduces an additional hazard due to the absence of a tool rest.

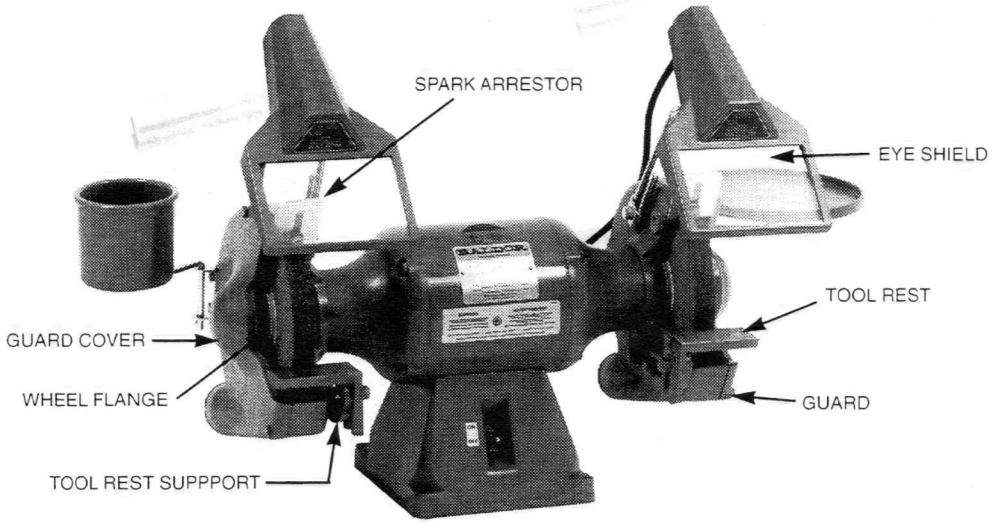
Do not expose to rain or use in damp or wet locations. Keep work area well lighted.

Use wheels marked at or over the rated rpm of the grinder (see table below).



GRINDER WHEEL

D GRINDER WHEEL SIZE	H ARBOR SIZE	NO LOAD SPEED ON NAMEPLATE
6"	1/2"	1800
6"	1/2"	3600
7"	5/8"	1800
7"	5/8"	3600
8"	3/4"	1800
8"	3/4"	3600
10"	7/8"	1800
12"	1 1/4"	1800
14"	1 1/4"	1800



TYPICAL BENCH GRINDER

INSTALLATION

Check grinder nameplate to make certain the rating is correct for the power supply, voltage and frequency.

Mount grinder on solid bench. Grinder may be used without bolting down for light work. For heavy work it should be bolted to the mounting surface. If mounted on pedestal, bolt grinder securely to pedestal and bolt pedestal to floor.

Adjust spark arrestor for approximately 1/16 inch clearance between it and grinding wheel. Maintain 1/8 inch maximum clearance between spark arrestor and wheel as wheel wears.

Adjust angle of tool rest on support to desired position and tighten nut securely. Adjust tool rest support on guard to obtain approximately 1/16 inch clearance between tool rest and grinding wheel and tighten nut securely.

Adjust eyeshields to position aligning center of eyeshield in line of sight to tool rest.

See electrical and grounding instructions for electrical service connection.

When starting a grinder for the first time, or after installing a replacement grinding wheel, it is most important that the operator stand aside for at least one minute. This is the correct practice since grinding wheels can disintegrate if they have received damage from shipping or handling.

OPERATION

Check that switch is on "off" position and that grinding wheels rotate freely. After connecting grinder to power source turn on switch. Grinder should come up to speed smoothly and without vibration. If grinder does not, shut grinder off immediately and determine reason.

As grinding wheel wears, maintain the maximum clearance of 1/8 inch between tool rest and grinding wheel and spark arrestor and grinding wheel. Suggest a clearance of approximately 1/16 inch when making adjustments.

Grind on grinding face (periphery) of wheels only.

MAINTENANCE

Normally, no maintenance other than the replacement of worn wheels is necessary. Wheels should be replaced after the diameter is reduced to two (2) inches below the original size. When replacing a wheel, clean out grinding dust from wheel guard to prevent damage to grinder and wheel.

The ball bearings used are lubricated for life and do not require additional lubrication.

Wipe off and dispose of grinding dust to prevent accumulation.

Replace damaged parts immediately to maintain safety of machine.

ELECTRICAL INSTRUCTIONS

Single phase grinders with wheels up to eight inches are equipped with cord and grounding type plug. Some single phase grinders are rated dual voltage. These grinders will be connected at the factory for 115 volts unless otherwise noted. Use instructions provided to reconnect for a different voltage. All attachment plugs and any receptacles shall be replaced with devices rated for the voltage for which the grinder is reconnected.

Three phase grinders are normally dual voltage and are reconnectable for the proper voltage in a conduit box, using instructions provided. Connect phase sequence for clockwise rotation when viewed from the outside of the left hand wheel as viewed from front of grinder. After making connections, make sure they are secured and properly insulated. For your safety, be certain grinder is properly grounded.

GROUNDING INSTRUCTIONS

1. All grounded, cord-connected grinders:

   In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This grinder is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

   Do not modify the plug provided — if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

   Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

   Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

   Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

   Repair or replace damaged or worn cord immediately.

2. Grounded, cord-connected grinders intended for use on a supply circuit having a nominal rating less than 150 volts:

   This grinder is intended for use on a circuit that has an outlet that looks like the one illustrated in Figure A. The tool has a grounding plug that looks like the plug illustrated in Figure A. A temporary adapter, which looks like the adapter illustrated in Figures B and C, may be used **(except in Canada)** to connect this plug to a 2-pole receptacle as shown in Figure B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, etc. extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

3. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating between 150-250 volts, inclusive:

   This grinder is intended for use on a circuit that has an outlet that looks like the one illustrated in Figure D. The grinder has a grounding plug that looks like the plug illustrated in Figure D. Make sure the grinder is connected to an outlet having the same configuration as the plug. No adapter is available or should be used with this grinder. If the grinder must be reconnected for use on a different type of electric outlet, the reconnection should be made by qualified service personnel; and after reconnection, the grinder should comply with all local codes and ordinances.

4. Permanently connected grinders:

   This grinder should be connected to a grounded, metal, permanent wiring system; or to a system having an equipment-grounding conductor.

Figure A

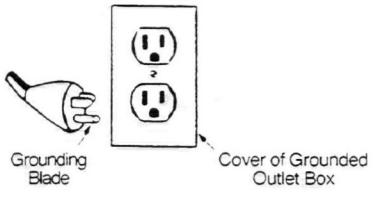


Figure B

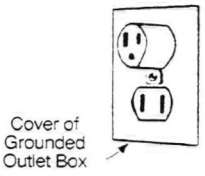


Figure C

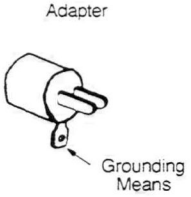


Figure D

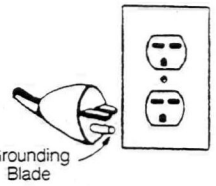


Table 1 – Minimum Gage for Cord

Ampere Rating		Volts	Total length of cord in feet			
		115 V 230 V	25 ft. 50 ft.	50 ft. 100 ft.	100 ft. 200 ft.	150 ft. 300 ft.
More Than	Not More Than	AWG				
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not Recommended	

SAFETY PRECAUTIONS

1. KEEP GUARDS IN PLACE and in working order.
2. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from grinder before turning it on.
3. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.
4. DON'T USE IN DANGEROUS ENVIRONMENT. Don't use grinders in damp or wet locations, or expose them to rain. Keep work area well lighted.
5. KEEP CHILDREN AND VISITORS AWAY. Remove starter keys and turn off master switches.
6. PADLOCK EQUIPMENT or work area when not in use.
7. DON'T FORCE GRINDER. It will do the job better and safer at the rate for which it was designed.
8. USE RIGHT TOOL. Don't force tool or attachment to do a job it was not designed for.
9. WEAR PROPER APPAREL. No loose clothing, neckties, rings, bracelets, or other jewelry to get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
10. ALWAYS USE SAFETY GLASSES WITH SIDE SHIELDS. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistance lenses, they are NOT safety glasses.
11. SECURE WORK. Use clamps to hold work piece when practical. It's safer than using your hand as it keeps hands away from wheel.
12. DON'T OVERREACH. Keep proper footing and balance at all times.
13. MAINTAIN GRINDER WITH CARE. Keep grinder clean for best and safest performance.
14. DISCONNECT GRINDER before servicing; when changing accessories such as wheels, tool rest, spark arrestor, etc.
15. AVOID ACCIDENTAL STARTING. Make sure switch is in "OFF" position before connecting to power supply.
16. USE RECOMMENDED ACCESSORIES. The use of improper accessories may cause hazards.
17. CHECK DAMAGED PARTS. Before further use of the grinder, a guard or other part that is damaged should be carefully checked to assure that it will operate properly and perform its intended function — check for alignment of moving parts, binding or moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
18. NEVER LEAVE GRINDER RUNNING UNATTENDED. Turn power off.
19. USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. when using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

Additional copies of the "Instruction Manual for Baldor Grinders," No. 275N, may be obtained at no charge.
Send request for additional copies to: Baldor Electric Company • P. O. Box 2400 • Fort Smith, AR 72902-2400